

**CLAIMS**

We claim:

1. A method for dynamically creating a reference identifier in an electronic document formatted as  
5 a data structure, comprising:
  - (a) following hierarchy of said data structure to reach a root of said data structure;
  - (b) traversing the data structure from said root until a target object is encountered; and
  - (c) generating said identifier from a location of said target object in said data structure.
- 10 2. The method of claim 1, wherein the step of traversing the data structure includes incrementing a counter when a specified branch of the data structure is encountered.
3. The method of claim 1, wherein the step of traversing the data structure includes clearing a counter when a specified branch of the data structure is closed.
4. The method of claim 1, wherein the step of traversing the data structure includes recursively traversing the data structure.
- 15 5. The method of claim 1, further comprising the step of updating said reference identifier to reflect changes in said data structure.
6. The method of claim 5, wherein the step of updating said reference identifier includes resetting an index for said data structure when content of said data structure is amended.
- 20 7. The method of claim 6, wherein amended content includes content selected from the group consisting of: inserted content, removed content, and reorganized content.

8. The method of claim 1, wherein said data structure is a standardized mark-up language.

9. A computer system comprising:

an electronic document formatted as a data structure;

a manager responsive to a traverse request of said data structure; and

a marker to identify a position of a target object in said data structure.

10. The system of claim 9, further comprising a counter increment responsive to said manager if a specified branch in said data structure matches said traverse request.

11. The system of claim 9, further comprising a counter clearance responsive to said manager if a specified branch in said data structure is closed.

12. The system of claim 9, further comprising a modified marker in response to an amendment to said data structure.

13. The system of claim 12, wherein said amendment to said data structure is selected from the group consisting of: inserted content, removed content, and reorganized content.

14. The system of claim 9, wherein said data structure is a standardized mark-up language.

15. An article comprising:

a computer-readable signal-bearing medium;

means in the medium for following hierarchy in a data structure to reach a root of said data structure;

means in the medium for traversing said data structure from said root; and

means in the medium for identifying a position of a target object in said data structure.

16. The article of claim 15, wherein the medium is selected from the group consisting of: a recordable data storage medium and a modulated carrier signal.
17. The article of claim 15, wherein said traversal means generates a counter increment responsive to a match of a specified branch in said data structure to a search request.
- 5 18. The article of claim 15, wherein said traversal means generates a counter clearance responsive to an encounter of a closed branch of said data structure to a search request.
19. A method for dynamically creating a reference identifier in an electronic document formatted as a data structure, comprising:
- 10 (a) following hierarchy of said data structure to reach a root of said data structure;
- (b) recursively traversing the data structure from said root until a target object is encountered;
- (c) wherein the step of traversing the data structure includes changing a counter when a branch of said data structure is encountered; and
- (d) generating said identifier from a location of said target object in said data structure.
- 15 20. The method of claim 19, wherein the step of traversing the data structure includes clearing said counter when a specified branch of said data structure is closed and a target object is null, and incrementing said counter when a specified branch of said data structure is encountered.
21. The method of claim 19, further comprising the step of updating said reference identifier to reflect changes in said data structure.